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**CLAIMS**

- 5        1.        Device for distributing materials in bulk comprising:  
a suspension rotor (20);

10                a chute (32) provided with two suspension arms (34, 34'), each of which is  
connected to the said suspension rotor (20) by means of a suspension pin  
(36, 36'), so as to define on the suspension rotor (20) a pivoting axis for  
the chute (32); and

15                a driving mechanism to produce a pivoting torque capable of pivoting the  
chute (32);

**characterised by**

20                a control lever (52, 52') connected by means of an articulated joint (54,  
54') to the said suspension rotor (20), the said driving mechanism being  
connected to the said control lever (52, 52') so as to transmit to the latter  
the said pivoting torque; and

25                a stop (56, 56') on the said control lever (52, 52') and a counterstop (58,  
58') on a suspension arm (34, 34'), the said stop (56, 56') coming into  
contact with the said counterstop (58, 58') so as to transmit the said  
pivoting torque to the said suspension arm (34, 34').

- 30        2.        Device according to Claim 1, characterised  
in that a control lever (52, 52') is associated with each of the two  
suspension arms (34, 34') and connected by means of an articulated joint  
to the said suspension rotor (20);

in that the said driving mechanism is connected to the two control levers (52, 52') so as to transmit the said pivoting torque symmetrically to the said levers; and

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in that a stop (56, 56') on each of the two control levers (52, 52') cooperates with a counterstop (58, 58') on the suspension arm (34, 34') with which the respective control lever (52, 52') is associated in order to transmit the said pivoting torque to the two suspension arms (34, 34') of the chute (32).

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3. Device according to Claim 2, characterised in that the said driving mechanism comprises:

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a control rotor (30) having a rotation axis coaxial with the said suspension rotor (20), the said control rotor (30) being provided with an annular gear (44);

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an angular drive (38) which is carried by the said suspension rotor (20) and which comprises:

an input shaft (40), which is provided with a pinion (42) that meshes with the annular gear (44) of the said control rotor (30); and

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an output shaft (46), which is parallel to the pivoting axis of the chute (32) and which is driven in rotation when the said input shaft (40) is driven in rotation by the annular gear (44) of the said control rotor (30);

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a crank and connecting rod mechanism (48, 50, 48', 50') connecting the said output shaft (46) to the two control levers (52, 52').

4. Device according to any one of Claims 1 to 3, characterised in that:  
the said stop is formed by a driving pivot (56, 56') carried by the said  
control lever (52, 52'); and

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the said counterstop is formed by a guiding slot (58, 58') provided in the  
said suspension arm (34, 34') of the chute (32).

5. Device according to Claim 4, characterised in that:

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the said suspension arm (34, 34') of the chute (32) comprises a lever arm  
with a free end; and

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the said guiding slot (58, 58') has an entrance in the said free end so that  
the said driving pivot (56, 56') can be introduced into it by a translation of  
the suspension arm (34, 34') in a direction perpendicular to the said driving  
pivot (56, 56').

6. Device according to any one of Claims 1 to 6, characterised in that each of  
the two suspension pins (36, 36') is mounted in a removable way in a  
housing of the suspension rotor (20).

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7. Device according to Claim 6, characterised in that each of the two  
suspension arms (34, 34') of the chute (32) comprises an oblong hole (70,  
70') for the passage of its suspension pin (36, 36') so that the two  
suspension pins (36, 36') can be freed by raising the chute (32).

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8. Device according to any one of Claims 1 to 7, characterised in that the  
suspension pin (36, 36') of the suspension arms (34, 34') and the  
articulated joint (54, 54') of the control lever (52, 52') are substantially  
coaxial.

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9. Device according to any one of Claims 1 to 8, characterised in that the

control lever (52, 52') is formed by an assembly of two symmetrical half-levers (60', 60'') between which is housed a free end of the suspension arm (34, 34').

5      10.      Device according to any one of Claims 1 to 9, characterised by:  
an outer casing (14) in which the said suspension rotor (20) is suspended,  
the said casing (14) comprising a lower screen (28) provided with a  
circular opening;

10                      a flange (26) carried by the lower end of the said suspension rotor (20),  
the said flange (26) being set into the said circular opening;

two elongated holes (35, 35') located in the said flange (26) for the  
passage of the two suspension arms (34, 34') of the chute (32); and

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two supporting flanges (62', 62'') flanking each of the said elongated holes  
(35, 35') for the support of the suspension pins (36, 36') at each of their  
ends.

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